REMARKS/ARGUMENTS

Reconsideration and withdrawal of the outstanding grounds of rejection is respectfully requested in light of the above amendments and the remarks that follow.

The Examiner rejects claims 6, 13 and 25 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. According to the Examiner, the term "average performance" is not sufficiently defined, rendering the claims indefinite.

While the Examiner's point might be well taken if the term were intended to be merely a relative comparison, as in, for example, a student's grades being termed "unsatisfactory," "average" or "superior," that is not the case here. The term as used in this application (and as apparent from the specification) refers to an average of performance data over time, as in, for example, average miles per gallon over time or, more relevant here, again by way of example, to power output per day over six months' time, etc. As such, it is respectfully submitted there is nothing indefinite about the use of the term "average performance" and accordingly, withdrawal of this ground of rejection is requested.

The Examiner has also rejected claims 1-6, 8, 9, 11-13, 15-18, 20-25, 27-29, 31, 32 and 34-40 under 35 U.S.C. § 103 as being unpatentable over an article entitled, "Pilot-Scale Evaluation of Australian Thermal Coal for Combustion and Gasification" (referred to hereinafter as 'the Juniper article") in view of the Reed et al. article entitled, "Developing Interactive Education Engineering Software for the World Wide Web with Java" (hereinafter referred to as "the Reed article").

The Examiner notes that Juniper teaches a pilot scale facility for the purpose of evaluating combustion and that Reed discloses a gas turbine simulation system which utilizes the Java language environment software across the internet. According to the Examiner, it would

have been obvious to one of ordinary skill in the art to modify the teaching in Juniper of a pilot scale facility "by way of Reed since it would be advantageous to remove incompatibilities between computer systems, resulting in an 'explosion of accessibility.'"

It is respectfully submitted that the prior art as cited and combined by the Examiner in no way establishes prima facie obviousness with respect to any claim in this application. The Juniper article describes a number of pilot scale facilities designed to simulate combustion and gasification processes. According to the article, the pilot scale rigs can be used to evaluate the impact of coal properties on equipment design and operating performance of full scale plants. The article acknowledges that because of the variety and complexity of the combustion and gasification processes, a complete simulation is generally not possible. In other words, gasification and combustion processes are merely analyzed as a function of different types of fuel, including bituminous and low rank coals. For example, the article discusses a gas turbine simulator for evaluation of the performance of slurries from brown coal and also the gas produced from its gasifier facility. The simulator is designed specifically to:

> operate over a range of temperatures and pressures that are representative of industrial gas turbines. . . ,
>
> simulate the blade profile of the inlet nozzle section of a gas turbine,
>
> measure the ash deposition on the nozzle stage during operation and ash deposition, erosion and corrosion on test probes downstream of the nozzle section, and
>
> minimize the complexity and restrictions on operation by not having any rotating components.

The article also acknowledges difficulty in translating test results to full-scale performance, noting that, "this has proved to be hard to achieve because of the difficulty and cost of obtaining detailed measurements and operating plants." The article then goes on to describe

various techniques for approximating translation to full scale performance including a multiple point correlations, direct correlations and mathematical simulations. In all cases, the goal is to provide meaningful data on the performance parameters of test coals and selected reference coals.

As is readily apparent, the Juniper article has nothing to do with analyzing performance characteristics of a full-scale, fully operational installed, power generating turbine and to a computer system for analyzing performance characteristics based on changes or modifications to the existing turbine configuration.

The Reed article proposes an educational simulator wherein various engine data are inputted and a theoretical output is calculated to understand the behavior. Reed's simulator is not even capable of capturing hundreds of live data beds coming from actual sensors installed on particular operating power generating gas turbines. Reed's simulator can only take dummy, theoretical or design data that is precalculated based on physics rules. Many of these rules have assumptions built into them which result in differences observed during actual performance.

Thus, on the one hand, we have the Juniper article that describes only pilot scale rigs designed to compare performance data for different fuel grades and, on the other hand, the Reed article that simply describes an educational theoretical simulation system. These articles, taken individually or in combination, do not even approach the subject matter of the invention claimed here. In this regard, the independent claims have been amended to further emphasize the fact that the instant invention relates to a method for determining and analyzing performance of an installed power generating turbine. In fact, a comparison of the specific steps required by, for example, independent claim 1, reveals not one of the steps required by the claim is disclosed or suggested in either of the references cited by the Examiner. Specifically, neither the Juniper

article nor the Reed article discloses a method that includes receiving from an operator of an installed power generating turbine an identification of the installed turbine to be analyzed; retrieving configuration information for the identified installed turbine; determining current performance characteristics of the installed turbine based on the retrieved configuration information; sending to the operator a display page for displaying the determined current performance characteristics, receiving from the operator an indication of a modification to the configuration of the identified installed turbine; determining future performance characteristics of the identified installed turbine based on indicated modification to its configuration; and sending to the operator a display page for displaying the determined future performance characteristics.

The same is true with respect to each of the claims dependent from claim 1.

Independent claim 11 is similar to claim 1 and the arguments for patentability presented above with respect to claim 1 apply equally here. It follows that the subject matter of dependent claims 12, 13, 15-25 and 27 is also patentable over the applied prior art.

Independent claim 28 requires a computer readable medium containing instructions for controlling a computer system to determine a performance characteristic of an installed power generating turbine having a particular configuration, the method comprising simulating a current performance characteristic based on a plurality of readings collected from the identified installed power generating turbine; receiving an indication of a modification to the configuration; and determining a future performance characteristic of the identified installed turbine based on indicated modifications to the configuration. Here again, the claimed method has to do with an actual installed power generating turbine and a method of analyzing performance characteristics

based on actual readings and based on suggested modifications to the configuration. The prior art as cited and applied by the Examiner nowhere even remotely suggests the claimed method.

It follows that the subject matter of dependent claims 29-32 and 34-37 is also nowhere disclosed or suggested in the applied prior art.

Independent claim 38 again relates to a computer system for determining a performance characteristic of an installed power generating turbine, the computer system comprising means for receiving an indication of a modification to the configuration of the identified installed turbine and means for determining a future performance of the identified installed turbine based on indicated modifications to its configuration. Of course, the means plus function language is to be interpreted as embracing the specific means disclosed in the application specification and equivalents thereto. The arguments presented with respect to the patentability of, for example, claims 1 and 28 apply equally here. It follows that the subject matter of dependent claims 39-41 is also patentable over the applied prior art.

It is respectfully submitted that remaining claims 1-6, 8-13, 15-25, 27-32 and 34-41 are in condition for immediate allowance and early passage to issue is requested. In the event any small matters remain outstanding, the Examiner is encouraged to call the undersigned so that the prosecution of this application can be expeditiously concluded.

Respectfully submitted,

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